

03500.017248

PATENT APPLICATION10/507316

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
AKIRA TSUBOYAMA ET AL.

Application No.: 10/507,316

Intl. Appln. No.: PCT/JP03/05601

Intl. Filing Date: May 2, 2003

For: LIGHT EMITTING DEVICE  
AND DISPLAY APPARATUS  
USING SAME

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: Examiner: Not Yet Assigned  
)  
: Group Art Unit: Not Yet Assigned  
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November 19, 2004

Mail Stop PCT  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

SECOND INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed foreign documents and non-patent publications are also enclosed.

The concise explanation of relevance for the non-English document is found in the specification where cited and in an attached abstract.

The Examiner's attention is also directed to the following U.S. Application:

<u>APPLICATION NO.</u>	<u>FILING DATE</u>	<u>GROUP ART UNIT</u>
10/886,570	July 9, 2004	1774

Since this application is stored in the U.S. Patent and Trademark Office's IFW system, a copy thereof is not enclosed due to a sua sponte waiver of 37 C.F.R. § 1.98(a)(2)(iii).

CONCLUSION

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be initialled and returned indicating that such information has been considered.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should be directed to our address given below.

Respectfully submitted,

  
\_\_\_\_\_  
Jason M. Okun  
Attorney for Applicants  
Registration No. 48,512

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

NY MAIN 465090v1

ATTY DOCKET NO.

03500.017248

APPLICATION NO.

10/507,316

APPLICANT

Akira Tsuboyama et al.

FILING DATE

May 2, 2003

GROUP

N.Y.A.

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		2003/0224208 A1	12/04/03	Kamatani et al.	428	690	04/07/03
		2003/0235712 A1	12/25/03	Takiguchi et al.	428	690	06/17/02
		2004/0013905 A1	01/22/04	Tsuboyama et al.	428	690	03/28/03

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
		10-308277	11/17/98	Japan			Abstract

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	C. H. Chen et al., "Recent Developments in Molecular Organic Electroluminescent Materials", <i>Macromol. Symp.</i> 125, 1997, pgs. 1-48.
	Y. Ma et al., "High Luminescence Gold(I) and Copper(I) Complexes with a Triplet Excited State for Use in Light-Emitting Diodes", <i>Advanced Materials.</i> , Vol. 11, No. 10, 1999, pgs. 852-857.
	Delphine Felder et al., "Highly Luminescent Cu(I)-Phenanthroline Complexes in Rigid Matrix and Temperature Dependence of the Photophysical Properties", <i>J. Am. Chem. Soc.</i> , 2001, 123. pgs. 6291-6299.
	Rosemary A. Rader et al., "Photostudies of [Cu(bpy)(PPh <sub>3</sub> ) <sub>2</sub> ] <sup>+</sup> , [Cu(phen)(PPh <sub>3</sub> ) <sub>2</sub> ] <sup>+</sup> , and [Cu(dmp)(PPh <sub>3</sub> ) <sub>2</sub> ] <sup>+</sup> in Solution and in Rigid, Low-Temperature Glasses. Simultaneous Multiple Emissions from Intraligand and Charge-Transfer States", <i>J. Am. Chem. Soc.</i> , 1981, 103, pgs. 5906-5912.
	Mark T. Miller et al., "Effects of Sterics and Electronic Delocalization on the Photophysical, Structural, and Electrochemical Properties of 2,9-Disubstituted 1,10-Phenanthroline Copper(I) Complexes", <i>Inorg. Chem.</i> , 1999, 38, pgs. 3414-3422.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

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## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	Toshiyuki Shono et al., "Syntheses of Copper (I) Triphenylphosphine Complexes", <i>Chemistry Letters</i> , 1972, pgs. 163-164.
	Wei-Lu Kwik et al., "Ternary Complexes of Copper (I) with 2,9-Dimethyl-1,10-phenanthroline and Some Oxygen-donor Ligands", <i>J.C.S. Dalton</i> , 1981, pgs. 452-455.
	Mark T. Miller et al., "A Highly Emissive Heteroleptic Copper (I) Bis(phenanthroline) Complex: [Cu(dbp)(dmp)] <sup>+</sup> (dbp = 2,9-Di-tert-butyl-1,10-phenanthroline; dmp = 2,9-Dimethyl-1,10-phenanthroline), <i>J. Am. Chem. Soc.</i> , 1999, 121, pgs. 4292-4293.
	Michèle K. Eggleston et al., "Steric Effects in the Ground and Excited States of Cu(NN) <sub>2</sub> <sup>+</sup> Systems", <i>Inorg. Chem.</i> , 1997, 36, pgs. 172-176.
	R. Michael Everly et al., "Reinvestigation of the Absorbing and Emitting Charge-Transfer Excited States of [Cu(NN) <sub>2</sub> ] <sup>+</sup> Systems", <i>J. Phys. Chem.</i> , 1991, 95, pgs. 9071-9075.

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